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/BN4SV
/AUGUST 10, 1972
/ROGER KUYKENDALL
/ELECTRO SCIENTIFIC INDUSTRIES
/13900 N.W. SCIENCE PARK DRIVE
/PORTLAND, ORECON

/THIS PROGRAM TRANSLATES SAVED FILES TO
/BINARY FORMAT FOR PS/3 OS/8 SYSTEMS.

/ON ENTRY, THE COMMAND DECODER IS CALLED
/SO THE RESPONSE TO THE ASTERISK (*) IS
/IN THE STANDARD COMMAND DECODER FORMAT.
/ONE OUTPUT FILE IS ALLOWED (OR ONE NON-FILE-
/FORMAT DEVICE) AND UP TO NINE INPUT FILES
/ARE ALLOWED. THE INPUT FILES ARE OUTPUT
/IN THE ORDER GIVEN IN THE COMMAND STRING,
/THUS WHEN THEY ARE LOADED, THE LATER ONES
/WILL OVERLAY THE EARLIER IF THERE IS ANY
/OVERLAP. USE CARE IN SELECTING OVERLAPPING
/FILES; REMEMBER THAT ALL SAVED FILES START
/AT ADDRESSES DIVISIBLE BY 400 (OCTAL), AS
/DO ALL NONCONTIGUOUS SEGMENTS OF THESE
/FILES.

/ERROR MESSAGES:
/THERE ARE THREE TYPES OF ERROR MESSAGES:
/COMMAND DECODER MESSAGES, MONITOR ERRORS,
/AND USER ERRORS.
/COMMAND DECODER ERRORS ARE SELF-EXPLANATORY
/AND SHOULD BE FAMILIAR TO ANYONE WITH
/EXPERIENCE IN OS/8-PS/3 PIP OR OTHER
/STANDARD PROGRAMS.
/MONITOR ERRORS ALMOST ALWAYS INDICATE
/HARDWARE FAILURES.
/USER ERROR MESSAGES HAVE THE FOLLOWING
/FORMAT:
/USER ERROR (CHARACTER) AT 00707
/THE CHARACTER INDICATES THE TYPE OF
/FAILURE AS FOLLOWS:

/USER ERROR D INPUT DEVICE ERROR
/(ALSO = OR SPACE)

/USER ERROR J BAD CORE IMAGE
/(ALSO O OR BACK-
/ARROW)

/USER ERROR X OUTPUT DEVICE ERROR
/(ALSO I, T,
/OR >)

/USER ERROR A OUTPUT DEVICE FULL

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55
56
57 /DEFINITIONS
58 0200 USR=200
59 0020 COUNT=20
60 0021 OUTCNT=21
61 0022 CYSM=22
62 0023 ADDRESS=23
63 0024 BINFLD=24
64 0025 INCONT=25
65 0026 CHAR=26
66 0027 CHR1=27
67 0030 CHR2=30
68 0031 CHR3=31
69 0032 LDCT=32
70 0033 CHC=33
71 0034 CHARK=34
72
73 0100 NAMES=100
74 0117 INFILES=NAMES+17
75 5000 OUTBUF=5000
76 6000 CILBUF=6000
77
78 0035 *CHARK+1
79 4035 BSW=JMS
80 00035 0000 BSWZ 0
81 00036 7112 CIL RTE
82 00037 7012 RTE
83 00040 7012 RTE
84 00041 5435 JMP 1 BSWZ
85
86 0200 PAGE
87 00200 7346 START, CLR CIL CMA RTE
88 00201 3033 DCA CHC
89 00202 3027 DCA CHR1
90 00203 3030 DCA CHR2
91 00204 6212 CTF 10
92 00205 4777 JMS 1 07700 /GET USER
93 00206 0010 10 /USERIN
94 00207 6212 CTF 10
95 00210 4776 JMS 1 /USE
96 00211 0005 5 /DECODE
97 00212 0020 0020 /ASSUMED EXTENSION
98 00213 7000 7000 /CLOSE TENTATIVE FILES
99 00214 1375 TAD 07377 /START OF CH 1151
100 00215 3010 DCA 10
101 00216 1374 TAD NAMES-1
102 00217 3011 DCA 11
103 00220 1373 TAD 07000-7417-22
104 00221 3030 DCA COUNT /NUMBER OF ENTRIES
105 00222 6211 NAME P. CTF 10
106 00223 1410 TAD 1 10
107 00224 6201 CTF 0
108 00225 3411 DCA 1 11
109 00226 0020 102 COUNT /FINISHED?

```


110	00227	5222	JMP NAMEP	/NO-- LOOP AGAIN
111	00230	1104	TAD NAME3+4	
112	00231	7640	STP CLA	
113	00232	5772	JMP EXOK	
114	00233	1371	TAD T0216	
115	00234	3104	DCA NAME3+4	
116	00235	5772	JMP EXOK	
117				
118	00236	0000	CHECK0 0	/SUBROUTINE TO ADD TO CHECKSUM
119	00237	3034	DCA CHARK	/SAVE INPUT
120	00240	1022	TAD CYSM	
121	00241	1034	TAD CHARK	/ADD TO CHECKSUM
122	00242	3022	DCA CYSM	
123	00243	1034	TAD CHARK	/GET INPUT AGAIN
124	00244	5536	JMP I CHECK	
125				
126			/ROUTINE TO LOAD 2 FOR 3 IN BINARY FORMAT	
127	00245	0000	LOAD0 0	
128	00246	3031	DCA CHR3	/SAVE INPUT CHARACTER
129	00247	2033	ISZ CAC	/DO WE HAVE A FIRST CHARACTER?
130	00250	5275	JMP CHSF	/NO--SHIFT CHARACTERS DOWN
131	00251	1031	TAD CHR3	/YES--SPLIT 3RD CHARACTER
132	00252	7106	RTL CLL	
133	00253	7106	RTL CLL	
134	00254	3031	DCA CHR3	
135	00255	1031	TAD CHR3	
136	00256	0370	AND C7400	/MASK FIRST 4 BITS
137	00257	1027	TAD CHR1	/COMBINE WITH FIRST CHARACTER
138	00260	4301	JMS PUT	
139	00261	1027	DCA CHR1	
140	00262	1031	TAD CHR3	
141	00263	7106	RTL CLL	
142	00264	7106	RTL CLL	
143	00265	0370	AND C7400	/MASK 2ND 4 BITS
144	00266	1030	TAD CHR2	/COMBINE WITH 2ND CHARACTER
145	00267	4301	JMS PUT	
146	00270	7346	CLA CLL CMA RTL	
147	00271	3033	DCA CAC	/RESET CHARACTER COUNTER
148	00272	3030	CHS1 DCA CHR2	/CLEAR 2ND CHARACTER
149	00273	3031	DCA CHR3	/CLEAR 3RD CHARACTER
150	00274	5645	JMP I LOAD	/RETURN
151	00275	1030	CHSF TAD CHR2	/SHIFT 2ND CHARACTER
152	00276	3027	DCA CHR1	/TO FIRST
153	00277	1031	TAD CHR3	/SHIFT 3RD
154	00300	5272	JMP CHS1	/TO 2ND
155				
156	00301	0000	PUT0 0	/LOAD OUTPUT BUFFER
157	00302	3414	DCA I 14	
158	00303	2021	ISZ OUTCNT	
159	00304	5701	JMP I PUT	
160	00305	4767	JMS DUMP	/BUFFER FULL DUMP IT
161	00306	5701	JMP I PUT	
162				
163	00307	0000	LEADER0 0	/OUTPUT SOME LEADER
164	00310	1365	TAD C-40	

163	00011	3032	DCA LDCT	
165	00012	1375	TAD (280	
167	00013	4243	JMS LOAD	
168	00014	2032	ISZ LDCT	
169	00015	3313	JMF -3	
170	00016	5797	JMF 1 LEADER	
171				
172				
173	00017	1037	TAD CHR1	
174	00018	4161	JMS PUT	/1ST CHARACTER TO OUTPUT BUFFER
175	00021	3027	DCA CHR1	/CLEAR
176	00022	1039	TAD CHR2	
177	00023	4301	JMS PUT	/SECOND CHARACTER TO OUTPUT BUFFER

178	00365	7740		
179	00367	6540		
180	00370	7400		
181	00371	0215		
182	00372	0500		
183	00373	7737		
184	00374	0077		
185	00375	7577		
186	00376	0200		
187	00377	7700		
188		0400	PAGE	
189	00400	2020	READ	132 COUNT
190	00401	7410	SXF	/READ A FILE
191	00402	5777	JMF CLOSE	/LAST FILE READ?
192	00403	1376	TAD C4401	/YES--CLOSE OUTPUT FILE
193	00404	3213	DCA INHAND	/NO--GET ANOTHER FILE
194	00405	1413	TAD I 13	/INPUT HANDLER FUNCTION
195	00406	7450	SXA	
196	00407	5777	JMF CLOSE	/LAST FILE READ?
197	00410	6212	CIF 10	/YES--CLOSE OUTPUT
198	00411	4775	JMS I C7700	/USER FIELD
199	00412	0001	1	/HIGH USER
200	00413	0000	INHAND	/FETCH HANDLER
201	00414	4774	JMS ERROR	/HANDLER ADDRESS
202	00415	1413	TAD I 13	
203	00416	3222	DCA INBLK	
204	00417	4613	JMS I INHAND	/HANDLER
205	00420	0200	200	
206	00421	5000	CTLBUF	
207	00422	0000	INBLK	0
208	00423	4774	JMS ERROR	/DEVICE BLOCK NUMBER
209	00424	1373	TAD CCTLBUF-1	
210	00425	3015	DCA 15	
211	00426	1415	TAD I 15	
212	00427	1372	TAD C100	
213	00430	7710	SXA CLA	
214	00431	4774	JMS ERROR	/BAD CORE IMAGE
215	00432	1415	TAD I 15	
216	00433	0371	AND C7707	
217	00434	1370	TAD C-0203	
218	00435	7640	SXA CLA	
219	00436	4774	JMS ERROR	/BAD CORE IMAGE
220	00437	7201	CLA TAC	
221				
222	00440	1222	TAD INBLK	
223	00441	3315	DCA INBLK	
224	00442	1367	TAD CCTLBUF+3	
225	00443	3015	DCA 15	
226	00444	1705	INPUT	TAD CTLBUF
227	00445	7670	SXA CLA	/HAVE WE READ THE LAST OF THIS FILE?
228	00446	0200	JMF READ	/YES--READ ANOTHER
229	00447	1415	TAD I 15	/NO--GET START ADDRESS
230	00450	3023	DCA ADDRESS	
231	00451	1023	TAD ADDRESS	
232	00452	0365	AND C7400	

233	00453	7041		CIA	
234	00454	1012		TAD ADDRESS	
235	00455	7040		BZA CLA	
236	00456	4774		JMS ERROR	/BAD CORE IMAGE
237	00457	1013		TAD I 15	/GET FUNCTION WORD
238	00458	3024		DCA BINFLD	
239	00459	1024		TAD BINFLD	
240	00460	0364		AND C3700	
241	00461	1363		TAD C10	
242	00464	3313		DCA EDEN	/FORCE INTO FIELD 1
243	00465	1024		TAD BINFLD	
244	00466	0364		AND C3700	
245	00467	7104		PAR C11	/NUMBER OF WORDS
246	00470	7041		CIA	
247	00471	3025		DCA INCOM	/INPUT COUNTER
248	00472	1024		TAD BINFLD	
249	00473	0364		AND C30 /GET FIELD	
250	00474	3024		DCA BINFLD	
251	00475	1023		TAD ADDRESS	
252	00476	4030		BSN	
253	00477	0361		AND C77	
254	00480	1372		TAD C100	
255	00500	4750		JMS CHECK	
256	00502	4752		JMS LOAD	
257	00503	1023		TAD ADDRESS	
258	00504	0361		AND C77	
259	00505	4750		JMS CHECK	
260	00506	4752		JMS LOAD	
261	00507	1024		TAD BINFLD	
262	00510	1355		TAD C300	
263	00511	4752		JMS LOAD	
264					
265	00512	4513	GETH K	JMS I INWD	/INPUT HANDLER
266	00513	0000	EDEN	0	/DYNAMIC
267	00514	0000		0	/CORE ADDRESS IN FIELD 1
268	00515	0000	EDBL K	0	/DYNAMIC
269	00516	4774		JMS ERROR	
270	00517	7340		CLA C11 CNA	
271	00520	3016		DCA 16	/AUTO INDEX TO -1
272					
273	00521	6211	TRANS	CDF 10	/TRANSLATE TO BIN FORMAT
274	00522	1416		TAD I 26	
275	00523	6201		CDF 0	
276	00524	4341		JMS CODE	/ACTUAL TRANSLATION ROUTINE
277	00525	2005		152 INCOM	/DONE WITH CORE SEGMENT?
278	00526	7021		JNF TRANS	/NO-- LOOP AGAIN
279	00527	1313		TAD EDEN	/YES--COMPUTE NEW BLOCK NO.
280	00528	1372		TAD C100	/ROUND UP
281	00531	7110		PAR C11	
282	00532	4030		BSN	
283	00533	0361		AND C77	
284	00534	1372		TAD C100	
285	00535	2715		DCA REBLF	
286	00536	2706		153 C100	/LAST CORE SEGMENT?
287	00537	5044		JMP TAD10	/NO--GET ANOTHER

288	00540	5200	JMP READ	YES--GET ANOTHER FILE
289				
290	00541	0000	CODE	0
291	00542	1026	DCA CHAR	
292	00543	1026	TAD CHAR	
293	00544	4035	BSW	
294	00545	0361	AND C77	
295	00546	4750	JMS CHECK	
296	00547	4757	JMS LOAD	
297	00550	1026	TAD CHAR	
298	00551	0361	AND C77	
299	00552	4750	JMS CHECK	
300	00553	4757	JMS LOAD	
301	00554	5741	JMP 1 CODE	
302				

303	00555	0037		
304	00556	0300		
305	00557	0245		
306	00558	0236		
307	00559	0077		
308	00560	0070		
309	00561	0010		
310	00564	3700		
311	00565	7400		
312	00566	6000		
313	00567	6000		
314	00570	1575		
315	00571	7707		
316	00572	0100		
317	00573	5777		
318	00574	0711		
319	00575	7700		
320	00576	4401		
321	00577	0561		
322		0500	PAGE	
323			/OUTPUT ROUTINES	
324				
325	00600	1277	EXOK	TAD (INFILES-1
326	00601	3013		DCA 13
327	00602	1276		TAD C-12
328	00603	3020		DCA COUNT
329	00604	1375		TAD (4001
330	00605	3214		DCA OUTHAND
331	00606	1100		TAD NAMES
332	00607	7450		SMA
333	00610	5774		JMS START
334	00611	6212		CIF 10
335	00612	4774		JMS I (USR
336	00613	0001		1
337	00614	0000	OUTHAND	0
338	00615	4311		JMS ERROR
339	00616	1301		TAD CLONAM
340	00617	3226		DCA ENTNAM
341	00620	3227		DCA ENTNAM+1
342	00621	3302		DCA CLOUNT
343	00622	1100		TAD NAMES
344	00623	6212		CIF 10
345	00624	4774		JMS I (USR
346	00625	0003		3
347	00626	0101	ENTNAM	NAMES+1
348	00627	0000		0
349	00630	4311		JMS ERROR
350	00631	1375		TAD (OUTAUF-1
351	00632	3014		DCA 14
352	00633	1372		TAD C-400
353	00634	3021		DCA OUTOUT
354	00635	3022		DCA CASH
355	00636	4771		JMS HEADER
356	00637	3770		JMS READ
357				

355	00540	0000	DUMP	0	/DUMP ONE BLOCK OF OUTPUT FILE
356	00541	1226		TAD ENTNAM	
358	00542	3246		DCA DELOC	
361	00543	4514		JMS I OUTRD	
362	00544	4200		4200	/WRITE ONE BLOCK ON DEVICE
363	00545	5000		OUTBUF	/FROM OUTPUT BUFFER
364	00546	0000	DELOC	0	
365	00547	4311		JMS ERROR	
366	00550	2226		ISZ ENTNAM	
367	00551	2302		ISZ CLOCNT	
368	00552	1373		TAD (OUTBUF-1	
369	00553	3014		DCA 14	/14 IS OUTPUT POINTER
370	00554	1372		TAD C-400	
371	00555	3021		DCA OUTCNT	/RESET OUTPUT COUNTER
372	00556	2227		ISZ ENTNAM+1	
373	00557	5540		JMP I DUMP	
374	00558	4311		JMS ERROR	/THIS HAPPENS RARELY
375					
376				/ROUTINE TO CLOSE THE OUTPUT FILE	
377	00561	7300	CLOSE	CLA CLL	
378	00562	1022		TAD CKSN	
379	00563	4767		JMS COLE	/OUTPUT NEGATIVE OF CHECKSUM
380	00564	4771		JMS LEADER	/OUTPUT SOME LEADER
381	00565	1365		TAD (232	/CTRL 2
382	00566	4765		JMS LOAD	
383	00567	4765		JMS LOAD	
384	00570	4765		JMS LOAD	/TO MAKE SURE CTRL 2 WAS LOADED
385	00571	3414	CLLF	DCA I 14	/LOAD ZERO IN REST OF BLOCK
386	00572	2021		ISZ OUTCNT	
387	00573	5271		JMP CLLF	
388	00574	4240		JMS DUMP	/OUTPUT LAST BUFFER
389	00575	1100		TAD NAMES	
390	00576	6212		CIF 10	
391	00577	4764		JMS I (7700	
392	00700	0004		4	/USER CLOSE FILE
393	00701	0101	CLOCNT	NAMES+1	/GENERAL POINTER TO NAME
394	00702	0000	CLOCNT	0	/NUMBER OF BLOCKS IN FILE
395	00703	4311		JMS ERROR	
396	00704	3774		JMP START	
397					
398	00705	6201	GOFS	00F 0	
399	00706	6212		CIF 10	
400	00707	4764		JMS I (7700	
401	00710	0007		7	/USER ERROR
402	00711	0000	ERRR	0	
403	00712	5365		JMP GOFS	
404					
405	00754	7700			
406	00755	0245			
407	00756	0232			
408	00757	0541			
409	00770	0400			
410	00771	0007			
411	00772	7400			
412	00773	4777			

76N43V

FILE-12

413	00774	0200
414	00775	4001
415	00776	7705
416	00777	0116
417		

ADDRESS	0023
BINFLD	0024
BSW	4035
BSW2	0035
CHAR	0026
CHARK	0034
CHC	0033
CHECK	0236
CHR1	0027
CHR2	0030
CHR3	0031
CHSF	0270
CHS1	0272
CKSM	0022
CLLP	0671
CLOCNT	0702
CLONAM	0701
CLUSE	0561
CODE	0341
COUNT	0020
CTLEBUF	6000
DBLCK	0546
DUMP	0640
ENTNAM	0626
ERROR	0711
EXOK	0500
GETBLK	0512
INBLK	0422
INCONT	0025
INFILE	0117
ININD	0413
INFUT	0444
LDCT	0032
LEADER	0307
LOAD	0240
NAME3	0100
NALLP	0222
OPFS	0705
OUTBUF	5000
OUTCNT	0021
OUTHND	0514
PUT	0301
RDBLK	0515
RDPN	0013
READ	0400
START	0200
TRANS	0531
USR	0200

